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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,550	03/26/2004	Toshiki Taguchi	Q80720	6141

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SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

KLEMANSKI, HELENE G

ART UNIT PAPER NUMBER

1755

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/809,550

Applicant(s)

TAGUCHI ET AL.

Examiner

Helene Klemanski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/30/04&9/3/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Information Disclosure Statement

1. The references cited in the Search Report dated May 27, 2004 and July 27, 2004 have been considered.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3, 5 and 7 of copending Application No. 10/714,845 (US 2004/0094064). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application overlap said copending application claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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4. Claims 1-5 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3, 4, 7, 9, 14 and 15 of copending Application No. 10/503,764 (US 2005/0219339). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application overlap said copending application claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

5. Claims 1-6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 8-10, 13, 15, 20, 21 and 24 of copending Application No. 10/503,894 (US 2005/0178288). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application overlap said copending application claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

6. Claims 1-5 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4, 7, 9, 14 and 15 of copending Application No. 10/504,029 (US 2005/0117006). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application overlap said copending application claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

7. Claims 1-6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3 and 6 of copending Application No. 10/404,435 (US 2003/0210310). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application overlap said copending application claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

8. Claims 1-6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 6 and 7 of copending Application No. 10/806,453 (US 2004/0187734). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application overlap said copending application claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

9. Claims 1-6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3, 5 and 7 of copending Application No. 10/714,845 (US 2004/0094064). Although the conflicting claims are not identical, they are not patentably distinct from each other because the

claims of the present application overlap said copending application claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

10. Claims 1-6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 3-6 of copending Application No. 10/645,795 (US 2004/0050291). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application overlap said copending application claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

11. Claims 1-6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 and 7-9 of copending Application No. 10/645,797 (US 2004/0053988). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application overlap said copending application claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

In the above copending applications, it is the examiner's position that it would have been obvious to one having ordinary skill in the art that: (1) the dyes contained in

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the ink have a solubility of 15 g or more in 100 g of water at 25°C under atmospheric pressure and/or (2) the oxidation potential of the at least one azo dye or phthalocyanine dye is more positive than 1.0 V (vs SCE) since the azo dyes and the phthalocyanine dyes of the above copending applications are the same structure as those claimed by applicants.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

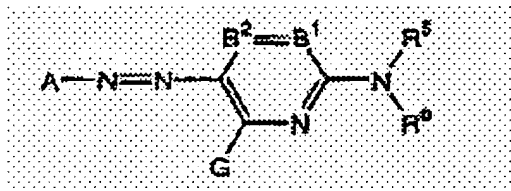
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

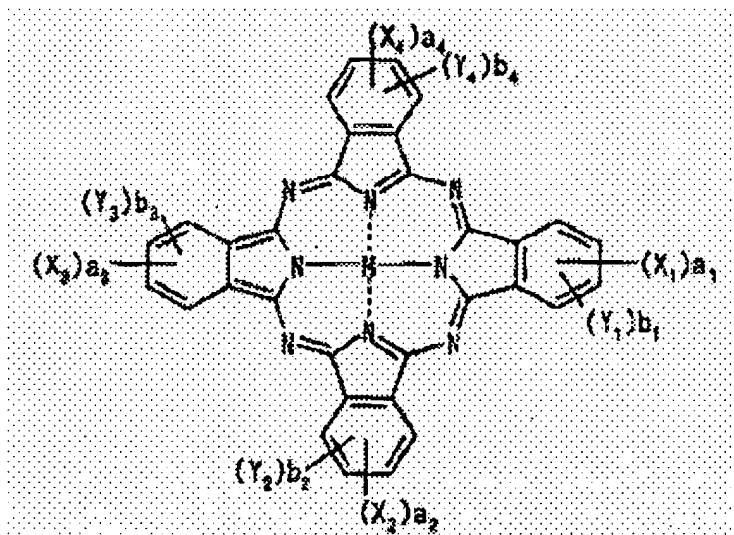
13. Claims 1-6 are rejected under 35 U.S.C. 102(a) as being anticipated by EP1384762.

EP1384762 teaches an ink jet ink set comprising a yellow ink, a magenta ink, a cyan ink, a black ink and a dark yellow ink, each ink comprising a dye, a water-miscible organic solvent and water. The magenta ink contains a water-soluble magenta dye of the formula

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wherein A represents a 5-membered heterocyclic group; B^1 and B^2 each represent a nitrogen atom, $=CR^1$ - or $-CR^2=$ and when one of B^1 and B^2 represents a nitrogen atom, the other represents $=CR^1$ - or $-CR^2=$; R^5 and R^6 each independently represents H, an aliphatic group, an aromatic group, a heterocyclic group, an acyl group, an alkoxy group, etc.; G, R^1 and R^2 each independently represent H, a halogen atom, aliphatic group, an aromatic group, a heterocyclic group, etc. and R^1 and R^5 or R^5 and R^6 may be connected to each other to form a 5- or 6- membered ring. The cyan ink contains a water-soluble cyan dye having an oxidation potential of higher than 1.1V (vs SCE) of the formula



wherein X_1 , X_2 , X_3 and X_4 each independently represent $-SO-Z$, SO_2-Z , $SO_2NR_1R_2$, sulfo group, $-CONR_1R_2$ or $-CO_2R_1$; Z represents a substituted or unsubstituted alkyl

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group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted aralkyl group, substituted or unsubstituted aryl group or substituted or unsubstituted heterocyclic group; R_1 and R_2 each independently represents H, substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted aralkyl group, substituted or unsubstituted aryl group or substituted or unsubstituted heterocyclic group, with the proviso that when there are a plurality of Z's, they may be the same or different; Y_1 , Y_2 , Y_3 and Y_4 each independently represent a monovalent substituent, with the proviso that when there are a plurality of any of X_1 to X_4 and Y_1 to Y_4 , they may be the same or different; M represents H, a metal atom, or the oxide, hydroxide or halide thereof; and a_1 to a_4 and b_1 to b_4 each independently represent an integer of from 0 to 4, with the proviso that a_1 to a_4 are not zero at same time. The dark yellow ink contains at least one of the above described magenta dyes and at least one of the above described cyan dyes. See page 2, line 45 – page 3, line 53, page 4, lines 17-44, page 6, lines 15-22, magenta dye formulas a-11 to a-15, a-17, a-32 to a-40, b-4, b-5, b-8, c-2, c-3, d-1, d-3 and e-4, page 23, lines 11-17 and lines 29-32, page 24, lines 1-23, page 26, lines 9-17, cyan dye formulas (I-1), (I-2), (I-7), (I-8), (I-10) to (I-12), 101-111, 113, 116-122, 131, 135, 137-140, 142-172 and 174, page 50, lines 42-48, page 53, lines 14-20, examples 4 and 11 and claims 1-3. The ink jet ink set as taught by EP1384762 appears to anticipate the present claims.

The only limitation in the claims not found by the examiner is the solubility and/or oxidation potential of the dyes. However, these limitations are considered

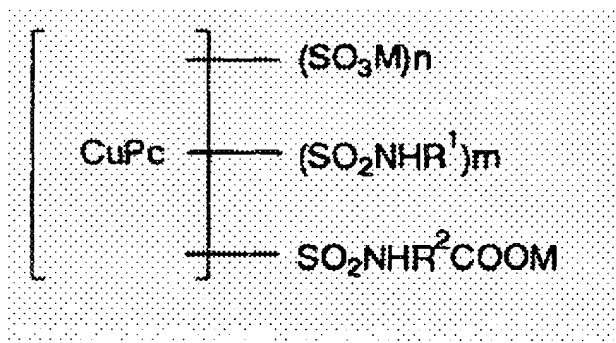
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inherent because there does not appear to be any reason why the cited reference would not contain a magenta and/or cyan dye with applicants claimed solubility and/or oxidation potential since the magenta dye and the cyan dye of the above reference are the same structure as those claimed by applicants.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

14. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by EP0985716.

EP0985716 teaches a cyan ink jet ink composition comprising a copper phthalocyanine dye, water, an organic solvent and an imidazole derivative or a water-soluble organonickel compound, with the proviso that when the imidazole derivative is present then the cyan ink composition further comprises an antioxidant, a saccharide or a compound of the formula (I). The copper phthalocyanine dye added is of the formula



wherein CuPc represents a phthalocyanine skeleton; R¹ represents H, a C₁₋₁₀ alkyl group, a C₁₋₁₀ alkoxy group or a hydroxy C₁₋₁₀ alkyl group; R² represents a C₁₋₁₀ alkylene group, a C₁₋₁₀ alkyleneoxy C₁₋₁₀ alkylene group or a substituted triazine group;

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M represents lithium, sodium, potassium, ammonium or a mono- or di-C₁₋₆ alkylamino group and n and m are each an integer of 0 to 4, provided that n+m is an integer of not more than 4. See page 3, lines 25-55, page 5, lines 1-23, cyan dyes of the formulas (a-1) and (a-3), page 8, lines 45-46, Cyan ink A-C1, Cyan ink A-C3, Cyan ink A-C4, Cyan ink A-C5, Cyan ink A-C6, Cyan ink A-C7, Light cyan ink A-LC7, Cyan ink B-C1, Cyan ink B-C3, Cyan ink B-C4, Light cyan ink B-LC4, Cyan ink B-C5, Cyan ink B-C6, Cyan ink B-C7, Light cyan ink B-LC7, Cyan ink C-C1, Cyan ink C-C3, Cyan ink C-C4, Light cyan ink C-LC4, Cyan ink C-C5, Cyan ink C-C6, Cyan ink C-C7, Light cyan ink C-LC7, example D1 and claim 1. The ink jet ink as taught by EP0985716 appears to anticipate the present claims.

The only limitation in the claims not found by the examiner is the solubility and/or oxidation potential of the dyes. However, these limitations are considered inherent because there does not appear to be any reason why the cited reference would not contain a cyan dye with applicants claimed solubility and/or oxidation potential since the cyan dye of the above reference are the same structure as those claimed by applicants.

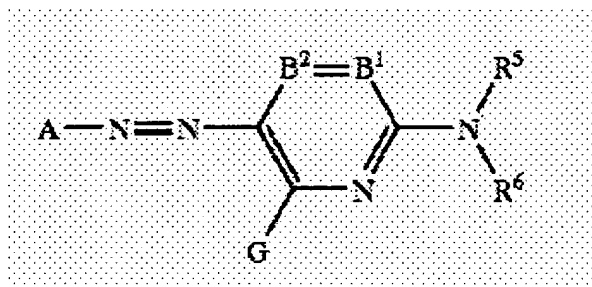
15. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Wachi (US 2003/0210310).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in

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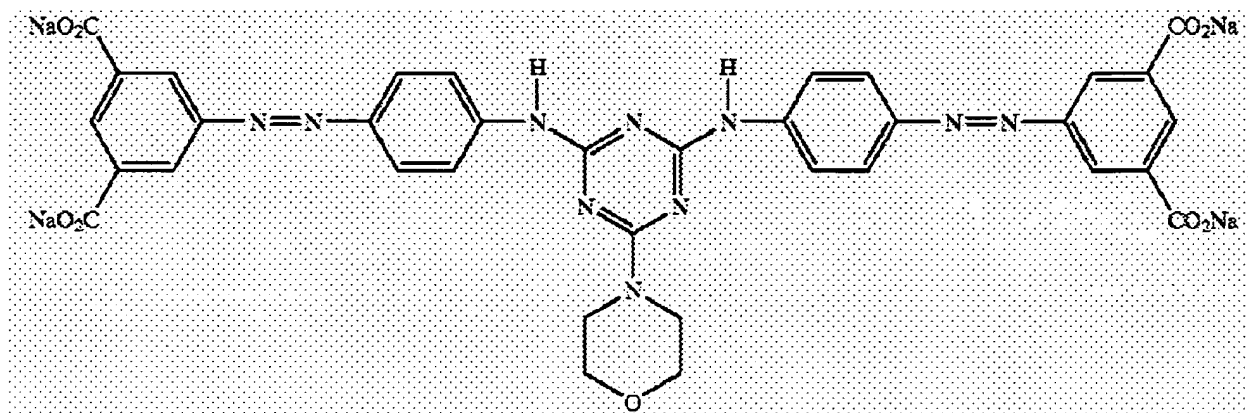
the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Wachi teaches an ink jet ink set comprising a yellow ink, a magenta ink and a cyan ink, each ink comprising a dye, a water-miscible organic solvent and water. The magenta ink contains a water-soluble magenta dye of the formula

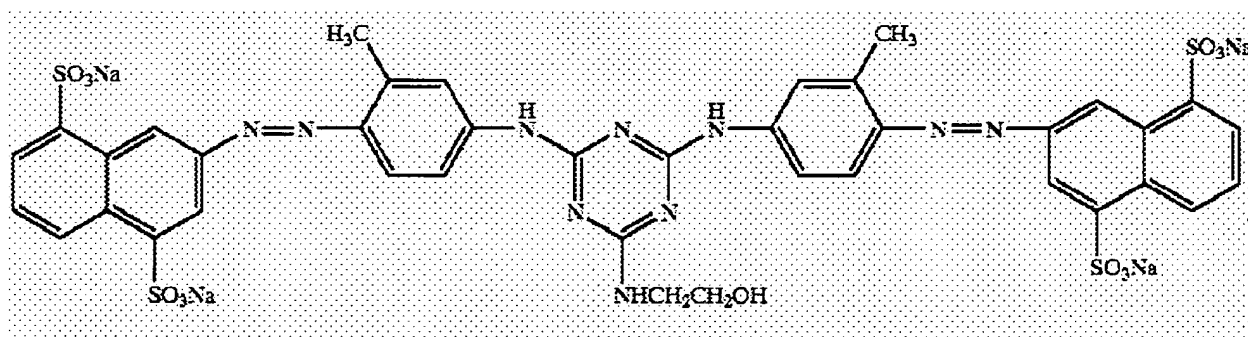


wherein A represents a 5-membered heterocyclic group; B¹ and B² each represent a nitrogen atom, =CR¹- or -CR²= and when one of B¹ and B² represents a nitrogen atom, the other represents =CR¹- or -CR²=; R⁵ and R⁶ each independently represents H, an aliphatic group, an aromatic group, a heterocyclic group, an acyl group, an alkoxycarbonyl group, etc.; G, R¹ and R² each independently represent H, a halogen atom, aliphatic group, an aromatic group, a heterocyclic group, etc. and R¹ and R⁵ or R⁵ and R⁶ may be connected to each other to form a 5- or 6- membered ring. The magenta dye has a solubility of 10 g or greater in 100 g of the aqueous medium (i.e. water and water-miscible organic solvent) at 25°C. The yellow ink contains a water-soluble dye of the formula

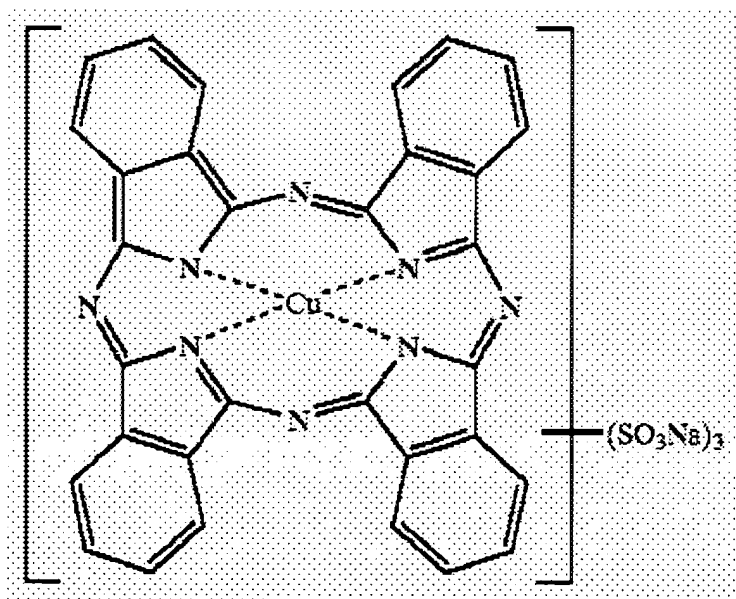
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or



The cyan ink contains a water-soluble dye of the formula



See paras. 0009-0019, paras.

0024-0025, paras. 0059-0063, magenta dye formulas a-11 to a-15, a-17, a-32 to a-40,

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b-4, b-5, b-8, c-2, c-3, d-1, d-3, e-4 and f-2, example 1, Table 14, para. 0240 and claims 1, 3 and 6. The ink jet ink set as taught by Wachi appears to anticipate the present claims.

The only limitation in the claims not found by the examiner is the solubility and/or oxidation potential of the dyes. However, these limitations are considered inherent because there does not appear to be any reason why the cited reference would not contain a magenta, yellow and/or cyan dye with applicants claimed solubility and/or oxidation potential since the magenta dye, the yellow dye and the cyan dye of the above reference are the same structure as those claimed by applicants.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

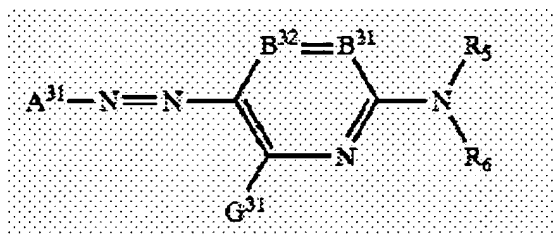
16. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Ozawa et al. (US 2004/0187734).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

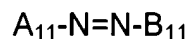
Ozawa et al. teach an ink jet ink set comprising a yellow ink, a magenta ink, a cyan ink and a black ink, each ink comprising a dye, a water-miscible organic solvent

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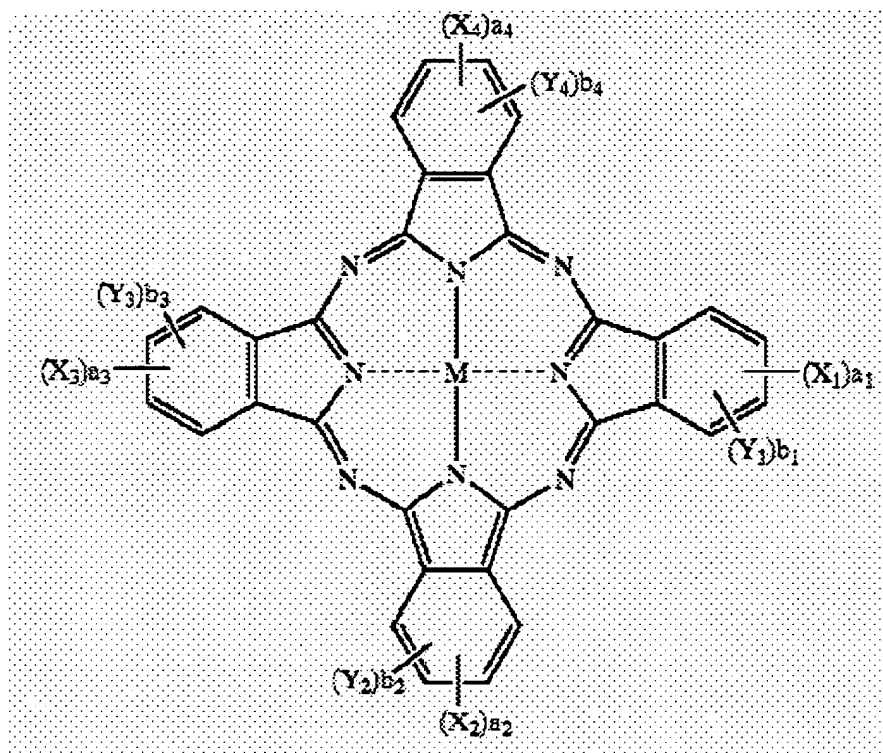
and water. The magenta ink contains a water-soluble magenta dye having an oxidation potential more positive than 1.0 V (vs SCE) of the formula



wherein A^{31} represents a 5-membered heterocyclic group; B^{31} and B^{32} each represent a nitrogen atom, $=CR^1$ - or $-CR^2=$ and when one of B^{31} and B^{32} represents a nitrogen atom, the other represents $=CR^1$ - or $-CR^2=$; R^5 and R^6 each independently represents H, an aliphatic group, an aromatic group, a heterocyclic group, an acyl group, an alkoxycarbonyl group, etc.; G, R^1 and R^2 each independently represent H, a halogen atom, aliphatic group, an aromatic group, a heterocyclic group, etc. and R^1 and R^5 or R^5 and R^6 may be connected to each other to form a 5- or 6- membered ring. The magenta dye dissolves in an amount of 2 wt% or more in water at 20°C. The yellow ink contains a water-soluble yellow dye having an oxidation potential more positive than 1.0 V (vs SCE) of the formula



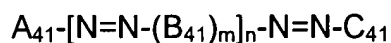
wherein A_{11} and B_{11} each independently represents a heterocyclic group, which may be substituted. The cyan ink contains a water-soluble cyan dye having an oxidation potential more positive than 1.0 V (vs SCE) of the formula



wherein X_1 , X_2 , X_3 and X_4 each independently represent $-\text{SO}-\text{Z}$, SO_2-Z , $\text{SO}_2\text{NR}_1\text{R}_2$, sulfo group, $-\text{CONR}_1\text{R}_2$ or $-\text{CO}_2\text{R}_1$; Z represents a substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted aralkyl group, substituted or unsubstituted aryl group or substituted or unsubstituted heterocyclic group; R_1 and R_2 each independently represents H , substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted aralkyl group, substituted or unsubstituted aryl group or substituted or unsubstituted heterocyclic group, with the proviso that when there are a plurality of Z 's, they may be the same or different; Y_1 , Y_2 , Y_3 and Y_4 each independently represent a monovalent substituent, with the proviso that when there are a plurality of any of X_1 to X_4 and Y_1 to Y_4 , they may be the same or different; M represents H , a metal atom, or the oxide,

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hydroxide or halide thereof; and a_1 to a_4 and b_1 to b_4 each independently represent an integer of from 0 to 4, with the proviso that a_1 to a_4 are not zero at same time. The black ink contains a water-soluble black dye having an oxidation potential more positive than 1.0 V (vs SCE) of the formula



wherein A_{41} , B_{41} and C_{41} each independently represents an aromatic group which may be substituted or a heterocyclic group which may be substituted; m represents 1 or 2 and n represents an integer of 0 or more. The black dye dissolves in an amount of 2 wt% or more in water at 20°C. See para. 0010, paras. 0012-0032, para. 0062, para. 0069, para. 0092, para. 0134, cyan dye formulas (I-1), (I-2), (I-7), (I-8), (I-10) to (I-12), 101-111, 113, 116-122, 131, 135, 137-140, 142-172 and 174, paras. 0144-0146, magenta dye formulas a-11 to a-15, a-17, a-32 to a-40, b-4 to b-6, b-8, c-2, c-3, d-1, d-3, e-4 and f-2, para. 0220, para. 0226, yellow dye formulas YI-1 to YI-17, YI-19, YI-22 to YI-37, YI-48 to YI-55, YI-58 to YI-65, YI-70 to YI-77, YI-85 to YI-103, YI-105, YI-107 and YI-108, para. 0285, black dye formulas (a-1) to (a-6), (b-1) to (b-6), (c-1) to (c-6), (d-1) to (d-6), (e-1), (e-2) and (f-1) to (f-3), para. 0367, example 1, Table 1, Ink Sets 101, 104 and 105 in Table 2 and claims 1, 6 and 7. The ink jet ink set as taught by Ozawa et al. appears to anticipate the present claims.

The only limitation in the claims not found by the examiner is the solubility and/or oxidation potential of the dyes. However, these limitations are considered inherent because there does not appear to be any reason why the cited reference would not contain a magenta, a yellow, a cyan dye and/or a black dye with applicants claimed

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solubility and/or oxidation potential since the magenta, yellow, cyan and black dye of the above reference are the same structure as those claimed by applicants.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

17. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Taguchi et al. (2004/0050291).

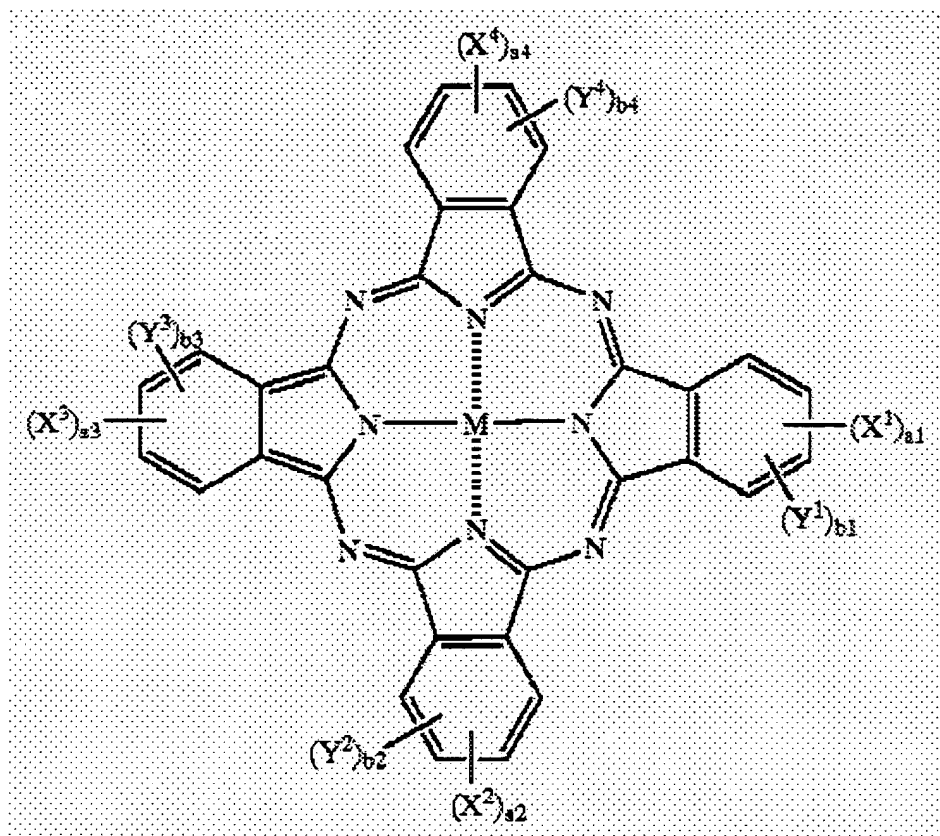
The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Taguchi et al. teach an ink jet ink set comprising a yellow ink, a magenta ink, and a cyan ink, each ink comprising a dye, a water-miscible organic solvent and water. The yellow ink contains a water-soluble yellow dye having an oxidation potential of higher than 1.0 V (vs SCE) of the formula

A-N=N-B

wherein A and B each independently represents a heterocyclic group which may be substituted. The magenta ink contains a water-soluble magenta dye of the formula

wherein A¹ represents a 5-membered heterocyclic group; B¹ and B² each represent a nitrogen atom, =CR¹- or -CR²= and when one of B¹ and B² represents a nitrogen atom, the other represents =CR¹- or -CR²=; R⁵ and R⁶ each independently represents H, an aliphatic group, an aromatic group, a heterocyclic group, an acyl group, an alkoxy carbonyl group, etc.; G, R¹ and R² each independently represent H, a halogen atom, aliphatic group, an aromatic group, a heterocyclic group, etc. and R¹ and R⁵ or R⁵ and R⁶ may be connected to each other to form a 5- or 6- membered ring. The magenta dye dissolves in an amount of not smaller than 2 wt% in water at 20°C. The cyan ink contains a water-soluble cyan dye having an oxidation potential more positive than 1.0 V (vs SCE) of the formula



wherein X_1 , X_2 , X_3 and X_4 each independently represent $-\text{SO}-Z^1$, SO_2-Z^1 , $\text{SO}_2\text{NR}^{21}\text{R}^{22}$, sulfo group, $-\text{CONR}^{21}\text{R}^{22}$ or $-\text{CO}_2\text{R}^{21}$; Z^1 represents a substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted aralkyl group, substituted or unsubstituted aryl group or substituted or unsubstituted heterocyclic group; R^{21} and R^{22} each independently represents H, substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted aralkyl group, substituted or unsubstituted aryl group or substituted or unsubstituted heterocyclic group, with the proviso that when there are a plurality of Z 's, they may be the same or different; Y_1 , Y_2 , Y_3 and Y_4 each independently represent a monovalent substituent, with the proviso that when there are a plurality of any of X_1 to X_4 and Y_1 to

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Y₄, they may be the same or different; M represents H, a metal atom, or the oxide, hydroxide or halide thereof; and a₁ to a₄ and b₁ to b₄ each independently represent an integer of from 0 to 4, with the proviso that a₁ to a₄ are not zero at same time. The cyan dye dissolves in an amount of not smaller than 2 wt% in water at 20°C. See para. 0010, paras. 0015-0021, para. 0033, paras. 0040-0041, para. 0074, yellow dye formulas YI-1 to YI-17, YI-19, YI-22 to YI-37, YI-48 to YI-55, YI-58 to YI-65, YI-70 to YI-77, YI-85 to YI-103 and YI-106 to YI-108, para. 0098, magenta dye formulas a-11 to a-15, a-17, a-32 to a-40, b-4 to b-6, b-8, c-2, c-3, d-1, d-3 and f-2, paras. 0165-0166, para. 0169, cyan dye formulas (I-1), (I-2), (I-7), (I-8), (I-10) to (I-12), 101-111, 113, 116-122, 131, 135, 137-140, 142-172 and 174, para. 0246, para. 0220, para. 0226, Ink Sets 102 and 103 in Table B and claims 1 and 3-6. The ink jet ink set as taught by Taguchi et al. appears to anticipate the present claims.

The only limitation in the claims not found by the examiner is the solubility and/or oxidation potential of the dyes. However, these limitations are considered inherent because there does not appear to be any reason why the cited reference would not contain a magenta, a yellow and/or a cyan dye with applicants claimed solubility and/or oxidation potential since the magenta, yellow and cyan dye of the above reference are the same structure as those claimed by applicants.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

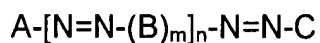
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18. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Taguchi et al. (2004/0053988).

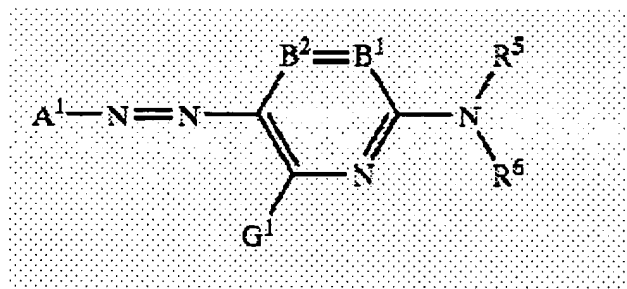
The applied reference has a common inventor with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Taguchi et al. teach an ink jet ink set comprising a black ink, a magenta ink, a cyan ink and a yellow ink, each ink comprising a dye, a water-miscible organic solvent and water. The black ink contains a water-soluble black dye of the formula

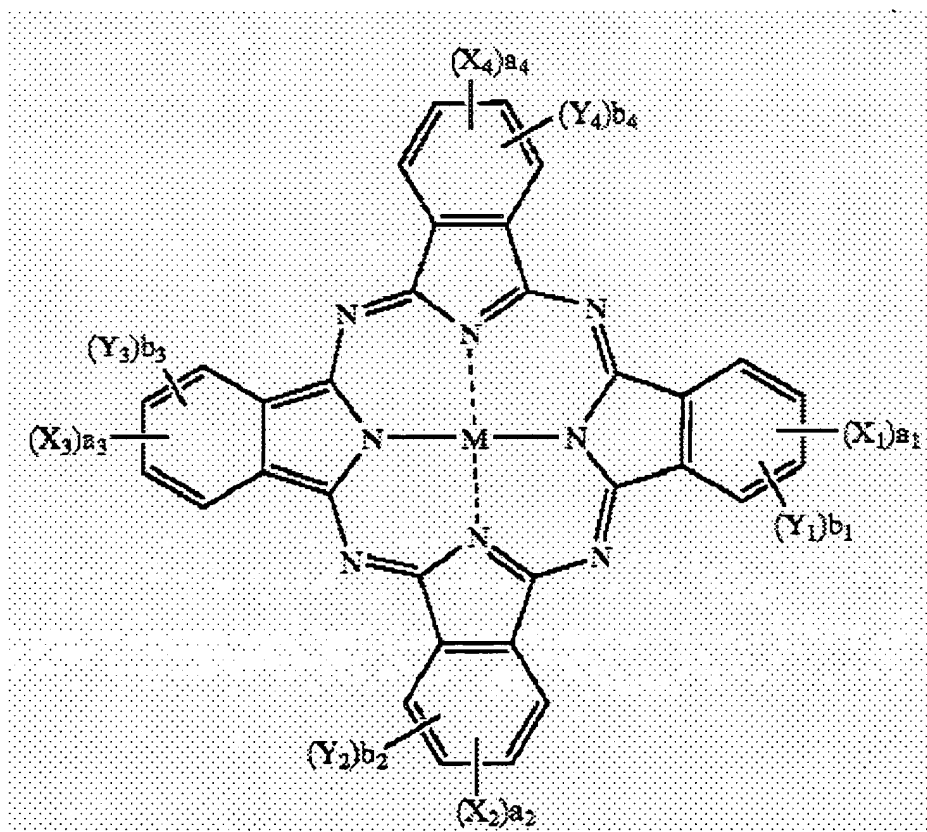


wherein A, B and C each independently represents an aromatic group which may be substituted or a heterocyclic group which may be substituted; m represents 1 or 2 and n represents an integer of 0 or more. The black dye dissolves in an amount of 2 wt% or more in water at 20°C. The magenta ink contains a water-soluble magenta dye of the formula



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wherein A^1 represents a 5-membered heterocyclic group; B^1 and B^2 each represent a nitrogen atom, $=CR^1-$ or $-CR^2=$ and when one of B^1 and B^2 represents a nitrogen atom, the other represents $=CR^1-$ or $-CR^2=$; R^5 and R^6 each independently represents H, an aliphatic group, an aromatic group, a heterocyclic group, an acyl group, an alkoxycarbonyl group, etc.; G, R^1 and R^2 each independently represent H, a halogen atom, aliphatic group, an aromatic group, a heterocyclic group, etc. and R^1 and R^5 or R^5 and R^6 may be connected to each other to form a 5- or 6- membered ring. The magenta dye dissolves in an amount of 2 wt% or more in water at 20°C. The cyan ink contains a water-soluble cyan dye having an oxidation potential more positive than 1.0 V (vs SCE) of the formula



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wherein X_1 , X_2 , X_3 and X_4 each independently represent $-\text{SO}-Z_1$, SO_2-Z_1 , $\text{SO}_2\text{NR}_{21}\text{R}_{22}$, sulfo group, $-\text{CONR}_{21}\text{R}_{22}$ or $-\text{CO}_2\text{R}_{21}$; Z_1 represents a substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted aralkyl group, substituted or unsubstituted aryl group or substituted or unsubstituted heterocyclic group; R_{21} and R_{22} each independently represents H, substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted aralkyl group, substituted or unsubstituted aryl group or substituted or unsubstituted heterocyclic group, with the proviso that when there are a plurality of Z_1 's, they may be the same or different; Y_1 , Y_2 , Y_3 and Y_4 each independently represent a monovalent substituent, with the proviso that when there are a plurality of any of X_1 to X_4 and Y_1 to Y_4 , they may be the same or different; M represents H, a metal atom, or the oxide, hydroxide or halide thereof; and a_1 to a_4 and b_1 to b_4 each independently represent an integer of from 0 to 4, with the proviso that a_1 to a_4 are not zero at same time. The cyan dye dissolves in an amount of 2 wt% or more in water at 20°C. The yellow ink contains a water-soluble yellow dye of the formula



wherein A^{11} and B^{11} each independently represents a heterocyclic group, which may be substituted. See para. 0006, paras. 0010-0023, para. 0036, black dye formulas (ba-1) to (ba-6), (bb-1) to (bb-7), (bc-1) to (bc-5), (bd-1) to (bd-6), (be-1), (be-2) and (bf-1) to (f-4), paras. 0117-0118, magenta dye formulas a-11 to a-15, a-17, a-32 to a-40, b-4 to b-6, b-8, c-2, c-3, d-1, d-3, e-4 and f-2, para. 0208, para. 0212, paras. 0235-0236, cyan

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dye formulas (I-1), (I-2), (I-7), (I-8), (I-10) to (I-12), 101-111, 113, 116-122, 131, 135, 137-140, 142-172, 174, 175, 182, 183, 186 and 188, para. 0293, yellow dye formulas Y1-1 to Y1-17, Y2-1 to Y2-20, Y3-1 to Y3-12, Y-142 and Y-146, Ink Set 104 in Table B and claims 1-3 and 7-9. The ink jet ink set as taught by Taguchi et al. appears to anticipate the present claims.

The only limitation in the claims not found by the examiner is the solubility and/or oxidation potential of the dyes. However, these limitations are considered inherent because there does not appear to be any reason why the cited reference would not contain a magenta, a yellow, a cyan dye and/or a black dye with applicants claimed solubility and/or oxidation potential since the magenta, yellow, cyan and black dye of the above reference are the same structure as those claimed by applicants.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Conclusion

The remaining references listed on forms 892 and 1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the above rejections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Klemanski whose telephone number is (571) 272-1370. The examiner can normally be reached on Monday-Friday 5:30-2:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Helene Klemanski
Primary Examiner
Art Unit 1755



HK

February 21, 2006